

In the Claims:

Please cancel claims 6 and 12-27 without disclaimer or prejudice to the inclusion of the subject matter contained therein in any later filed continuation or divisional application(s). Please amend claims 1, 4, 5, 7, 8, 10, and 28 as set forth below.

1. (Currently amended) A method for producing therapeutic human T regulatory cells (Treg cells) with enhanced suppressive activity, said method comprising: selecting a sample of CD4⁺ T cells; ~~and~~ isolating from said sample a population of human CD4⁺CD25⁺ suppressor T cells using ~~a lower titer of~~ anti-CD25 magnetic microbeads in a ~~modified~~ magnetic antibody cell sorting (MACS) purification procedure comprising a double column purification procedure[.,,]; and ex vivo, long-term, culture-expanding the CD4⁺CD25⁺ cells by GMP-approved methods, wherein said culture-expanding comprises activating the isolated CD4⁺CD25⁺ cells with beads coated with anti-CD3 and anti-CD28 antibodies at a ratio of a higher amount of anti-CD28 antibody to anti-CD3 antibody, thereby activating potent long-term suppressor activity in the isolated, culture-expanded cells, wherein prior to expansion the natural population of CD4⁺CD25⁺ suppressor cells represents a low percentage of the total isolated CD4⁺ T cell population.

2. (Original) The method of claim 1, wherein isolation of the CD4⁺CD25⁺ cells comprises a high level of stringency.

3. (Original) The method of claim 2, wherein said isolation of the CD4⁺CD25⁺ cells further comprises purifying the isolate by substantially enhancing CD4⁺CD25^{bright} cells in the population, while substantially depleting CD25^{dim} cells in the population.

4. (Currently amended) The method of claim 3, wherein said ~~purification method~~ isolating step comprises contacting the ~~isolate~~ selected CD4⁺ T cells with less than 10 μ l of said conjugated anti-CD25 magnetic microbeads at a predetermined bead/cell ratio per 10⁷ total cells, and wherein the double column purification procedure comprises purifying by running the bead/cell composition over a magnetic column to separate bead-bound cells, washing, and re-

eluting over a second magnetic column, and again washing until <1-2% of nonsuppressor cells remain in the purified isolate.

5. (Currently amended) The method of claim 1, wherein said culture-expanding step produces the CD4⁺CD25⁺ cells ~~comprises activating the isolated CD4⁺CD25⁺ cells with a cleavable cell-sized, antibody-coated, magnetic microbeads, thereby amplifying the culture-expanded Treg-suppressor cells over a sufficient period of time until there exists in the cell culture~~ an effective amount of suppressor cells to achieve therapeutic suppression of an immune or autoimmune response in a human.

6. (Canceled)

7. (Currently amended) The method of claim [[6]] 1, further comprising supplementing media for culture-expanding the cells with IL-2.

8. (Currently amended) The method of claim [[6]] 1, further comprising achieving at least 10-20 fold expansion of the cells within 14 days of culture.

9. (Original) The method of claim 8, further comprising achieving at least 100-fold expansion of the cells by culturing the cells for an additional 1-2 weeks.

10. (Currently amended) The method of claim [[6]] 1, further comprising generating suppressor cell lines that retain long term down-regulatory suppressor function.

11. (Original) The method of claim 1, wherein the sample is selected from the group consisting of whole or partially purified blood or hematopoietic cells, selected from the group consisting of peripheral blood mononuclear cells, peripheral blood lymphocytes, spleen cells, tumor-infiltrating lymphocytes and lymph node cells, and bone marrow and peripheral bone marrow cells.

12-27. (Canceled)

28. (Currently amended) The method of claim [[27]] 1, wherein the ratio of anti-CD3 antibody to anti-CD28 antibody is at least 1:5.

29. (Previously presented) The method of claim 10, wherein the cells retain long term down-regulatory suppressor function for at least three weeks.